

JOURNAL OF

# Ultrastructure Research

*Editor*

FRITIOF S. SJÖSTRAND

*Editorial Board*

U. AEBI • B. AFZELIUS • J. ANDRÉ • B. BACCETTI • G. F. BAHR • A. BAIRATI • R. F. BAKER  
T. S. BAKER • L. BARAJAS  
R. J. BARNETT • P. BAUDHUIN • S. R. BAWA • S. BULLIVANT  
D. CARLSTRÖM • P. CASSIER  
A. CLAUDE • A. I. COHEN • V. E. COSSLETT • W. TH. DAEMS • A. J. DALTON • M. DVOŘÁK  
R. M. EAKIN • F. A. EISERLING  
R. EKHOLM • K. ESAU • J. FARRANT • A. FREY-WYSSLING • L. L. HOEFERT • R. W. HORNE  
S. INOUÉ • E. KELLENBERGER • A. L. LEHNINGER • J. H. LUFT • A. G. MATOLTSY  
A. MAUNSBACH • R. K. MISHRA • L. PACKER • E. PAGE • S. L. PALAY • D. C. PEASE • D. R. PITELKA  
J. B. LE POOLE • E. PUVION • J. T. RANDALL • M. K. REEDY • J. F. REGER • E. J. REITH • J. P. REVEL  
J. A. G. RHODIN • H. RIS • D. C. ROGERS • G. E. ROGERS • E. RUSKA • B. SATIR • J. SCHRÉVEL • W. STELL  
H. THEORELL • E. VIVIER • E. R. WEIBEL • R. S. WEINSTEIN • W. G. WHALEY • R. W. G. WYCKOFF

Volume 75  
1981



ACADEMIC PRESS, INC., PUBLISHERS, NEW YORK AND LONDON

A Subsidiary of Harcourt Brace Jovanovich, Publishers

Copyright © 1981 by Academic Press, Inc.

*All rights reserved*

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (21 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1981 articles are the same as those shown for current articles.

MADE IN THE UNITED STATES OF AMERICA

# Contents of Volume 75

## NUMBER 1, APRIL 1981

COLIN R. GREEN. Septate Junctions of the Phylum Hemichordata .....	1
COLIN R. GREEN. Fixation-Induced Intramembrane Particle Movement Demonstrated in Freeze-Fracture Replicas of a New Type of Septate Junction in Echinoderm Epithelia .....	11
HAMIDUR R. KHAN AND A. S. M. SALEUDDIN. Cell Contacts in the Kidney Epithelium of <i>Helisoma</i> (Mollusca: Gastropoda)—Effects of Osmotic Pressure and Brain Extracts: A Freeze-Fracture Study .....	23
ERNST N. SCHMID, BEATE MENGE, AND KARL G. LICKFELD. Capsule Fine Structure in Thin Slices of <i>Klebsiella pneumoniae</i> Biovar d (Richard) .....	41
GUY TRONCHIN, DANIEL POULAIN, JACQUELINE HERBAUT, AND JEAN BIGUET. Cytochemical and Ultrastructural Studies of <i>Candida albicans</i> . II. Evidence for a Cell Wall Coat using Concanavalin A .....	50
W. BAUMEISTER, O. KÜBLER, AND H. P. ZINGSHEIM. The Structure of the Cell Envelope of <i>Micrococcus radiodurans</i> as Revealed by Metal Shadowing and Decoration .....	60
RICHARD G. KESSEL. Origin, Differentiation, Distribution and Possible Functional Role of Annulate Lamellae during Spermatogenesis in <i>Drosophila melanogaster</i> .....	72
HOWARD R. PETTY AND B. R. WARE. The Inflammatory Macrophage-Concanavalin A Interaction: A Thin-Section and Scanning Electron Microscopy and Laser Doppler Electrophoretic Investigation of Surface Events .....	97
G. FUMAGALLI, A. BRIGONZI, T. TACHIKAWA, AND F. CLEMENTI. Rat Myoblast Fusion: Morphological Study of Membrane Apposition, Fusion, and Fission during Controlled Myogenesis <i>in Vitro</i> .....	112

## NUMBER 2, MAY 1981

T. YAMAMOTO, R. T. HESS, AND Y. TANADA. Assembly of Occlusion-Body Proteins around the Enveloped Virion of an Insect Baculovirus .....	127
PETER B. MOENS AND T. MOENS. Computer Measurements and Graphics of Three-Dimensional Cellular Ultrastructure .....	131
F. C. M. VAN MEEL, G. C. BEVERSTOCK, P. L. PEARSON, AND W. TH. DAEMS. Electron Microscopic Studies on the Incorporation of Human Spermatozoa into Mouse Fibroblasts following Sendai Virus Fusion .....	142
R. BRUCE WHITE AND DAVID L. BROWN. ATPase Activities Associated with the Flagellar Basal Apparatus of <i>Polytomella</i> .....	151
M. ISRAËL, R. MANARANCHE, N. MOREL, J. C. DEDIEU, T. GULIK-KRZYWICKI, AND B. LESBATS. Redistribution of Intramembrane Particles Related to Acetylcholine Release by Cholinergic Synaptosomes .....	162
ANDREW H. CRENSHAW, JR., JERRY W. SHAY, AND LEONARD R. MURRELL. Colcemid-Induced Micronucleation in Cultured Human Cells .....	179



LIH-HUEI L. LIAW AND MICHAEL W. BERNIS. Electron Microscope Autoradiography on Serial Sections of Preselected Single Living Cells .....	187
YOSABURO SHIBATA AND ERNEST PAGE. Gap Junctional Structure in Intact and Cut Sheep Cardiac Purkinje Fibers: A Freeze-Fracture Study of $Ca^{2+}$ -Induced Re-sealing .....	195
KIYOSHI TAKAHASHI AND MEHDI TAVASSOLI. A Minibead Method to Study Cell Surface Receptors for Various Proteins Coupled to Latex Particles .....	205
V. R. FRANCESCHI AND W. J. LUCAS. The Glycosome of <i>Chara</i> : Ultrastructure, Development, and Composition .....	218
MASSIMO DERENZINI, ANNALISA PESSION-BRIZZI, CHRISTINE BETTS-EUSEBI, AND FRANCESCO NOVELLO. Relationship between the Fine Structural Organization of Chromatin and Nucleic Acid Synthesis in Regenerating Rat Hepatocytes .....	229
JOEL A. SWANSON, D. LANSING TAYLOR, AND JOHN T. BONNER. Coated Vesicles in <i>Dictyostelium discoideum</i> .....	243

### NUMBER 3, JUNE 1981

EMMA HOLEČKOVÁ, VÁCLAV MANDYS, AND PETR MUSIL. Cell Surface Morphology of a Variant L-Cell Line Resistant to Low and Sensitive to High Temperature ...	251
P. WÖRNER, J. METZ, H. PATSCHEKE, AND W. G. FORSSMANN. Role of External Calcium in A23187-Promoted Serotonin Release from Platelets in the Presence or Absence of Tetracaine .....	259
JOSEF VOŘÍŠEK AND PŘEMYSL SAJDL. Fine-Structural Localization of Oxaloacetate-Forming Carboxylases in Vacuoles of <i>Claviceps purpurea</i> .....	269
THOMAS HOLSTEIN. The Morphogenesis of Nematocytes in <i>Hydra</i> and <i>Forskâlia</i> : An Ultrastructural Study .....	276
JOSEPH D. ZELIGS AND SEYMOUR H. WOLLMAN. Ultrastructure of Cytokinesis in Blood Capillary Endothelial Cells in Thyroid Gland <i>in Vivo</i> .....	291
KYUNG SOO KIM. Ultrastructure of Bean Leaf Beetle ( <i>Ceratoma trifurcata</i> ) Hemocytes and Their Phagocytic Activities on Tobacco Mosaic Virus, a Non-Beetle-Transmitted Virus .....	300
DONALD L. MYKLES AND DOROTHY M. SKINNER. Preferential Loss of Thin Filaments during Molt-Induced Atrophy in Crab Claw Muscle .....	314
KATHERINE ESAU AND LYNN L. HOEFERT. Beet Yellow Stunt Virus in the Phloem of <i>Sonchus oleraceus</i> L. ....	326
JENNIFER THORSCH AND KATHERINE ESAU. Ultrastructure Studies of Protophloem Sieve Elements in <i>Gossypium hirsutum</i> .....	339
AD G. M. BEKERS, HUUB J. GIJZEN, ROB D. F. M. TAALMAN, AND FRIEDRICH WANKA. Ultrastructure of the Nuclear Matrix from <i>Physarum polycephalum</i> during the Mitotic Cycle .....	352
MICHAEL A. REIDY AND STEPHEN M. SCHWARTZ. <i>En face</i> Morphology of Endothelial Junctions .....	363
AUTHOR INDEX FOR VOLUME 75 .....	368

The Subject Index for Volume 75 will appear in the December 1981 issue as part of a cumulative index for the year 1981.